## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 12 May 2005 (12.05,2005)

(10) International Publication Number WO 2005/043658 A3

(51) International Patent Classification':

HOIM 8/04

(21) International Application Number:

PCT/JP2004/016356

(22) International Filing Date: 28 October 2004 (28.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2003-374264

4 November 2003 (04.11.2003)

(71) Applicant (for all designated States except US): NISSAN MOTOR CO., LTD. [JP/JP]; 2, Takara-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 2210023 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): NUMAO, Yasuhiro [JP/JP]; 3-18-4, Shounantakatori, Yokosuka-shi, Kanagawa 2370066 (JP). IWASAKI, Yasukazu [JP/JP]; 1-1175-40, Mutsukawa, Minami-ku, Yokohama-shi, Kanagawa 2320066 (JP). ABE, Mitsutaka [JP/JP]; 7-3-902, Ookawa, Kanazawa-ku, Yokohama-shi, Kanagawa 2360042 (JP).

(74) Agent: GOTO, Masaki; Shoyu-Kaikan, 3-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 1000013 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 12 January 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FUEL CELL SYSTEM AND WATER RECOVERY METHOD THEREOF

(57) Abstract: A fuel cell system comprises a fuel gas supply mechanism (1, 91-97) which supplies a fuel gas, an oxidizing gas supply mechanism (2) which supplies an oxidizing gas, a fuel cell (5) which generates power using the fuel gas supplied from the fuel gas supply mechanism (1, 91-97) and the oxidizing gas supplied from the oxidizing gas supply mechanism (2), and a water recovery device (41, 42) which separates and recovers water contained in exhaust gas from the fuel cell (5), and mixes the recovered water with a water-compatible liquid in the location where the water is separated and recovered.



